

Rat Metal Transporter Protein 1 (MTP1) ELISA Kit

Catalog No: #EK7272



Package Size: #EK7272-1 48T #EK7272-2 96T

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Description

Product Name	Rat Metal Transporter Protein 1 (MTP1) ELISA Kit
Brief Description	ELISA Kit
Applications	ELISA
Species Reactivity	Rat (<i>Rattus norvegicus</i>)
Other Names	FPN1; HFE4; IREG1; MST079; MSTP079; MTP1; SLC11A3; ferroportin 1 iron regulated gene 1 putative ferroportin 1 variant IIIB solute carrier family 11 (proton-coupled divalent metal ion transporters);
Accession No.	Q923U9
Uniprot	Q923U9
GeneID	170840;
Storage	The stability of ELISA kit is determined by the loss rate of activity. The loss rate of this kit is less than 5% within the expiration date under appropriate storage condition. The loss rate was determined by accelerated thermal degradation test. Keep the kit at 37C for 4 and 7 days, and compare O.D.values of the kit kept at 37C with that of at recommended temperature. (referring from China Biological Products Standard, which was calculated by the Arrhenius equation. For ELISA kit, 4 days storage at 37C can be considered as 6 months at 2 - 8C, which means 7 days at 37C equaling 12 months at 2 - 8C).

Application Details

Detect Range:0.312-20 ng/mL

Sensitivity:0.113ng/m

Sample Type:Serum, Plasma, Other biological fluids

Sample Volume: 1-200 µL

Assay Time:1-4.5h

Detection wavelength:450 nm

Product Description

Detection Method:SandwichTest principle:This assay employs a two-site sandwich ELISA to quantitate SLC40A1 in samples. An antibody specific for SLC40A1 has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and anySLC40A1 present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for SLC40A1 is added to the wells. After washing, Streptavidin conjugated Horseradish Peroxidase (HRP) is added to the wells. Following a wash to remove any unbound avidin-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of SLC40A1 bound in the initial step. The color development is stopped and the intensity of the color is measured.**Product Overview:**Ferroportin is a transmembrane protein that transports iron from the inside of a cell to the outside of it. Recent research suggests that ferroportin is inhibited by hepcidin, which therefore is the "master regulator" of human iron metabolism. Hepcidin binds to ferroportin, and results in the internalisation of ferroportin within the cell, followed by degradation by the proteasome. This results in retention of iron within the cell, and a reduction in iron levels within the plasma. This is part of the mechanism that causes anaemia of chronic disease; hepcidin is released from the liver in response to inflammatory cytokines, namely interleukin-6, which results in an increased hepcidin concentration and a consequent decrease in plasma iron levels.

Note: This product is for in vitro research use only